

Borough



of Crewe.

Annual Report

OF THE

Medical Officer of Health

TOGETHER WITH THE REPORT OF

Chief Sanitary Inspector.

1920.

CREWE:

THE CREWE STATIONERY CO., LTD., FRANCES STREET,

1921.



ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
TOGETHER WITH THE REPORT OF THE
CHIEF SANITARY INSPECTOR
FOR THE
BOROUGH OF CREWE

BY

J. D. INGRAM, M.B., Ch.B., D.P.H.

Medical Officer of Health,
School Medical Officer, Medical Superintendent of
Isolation Hospitals,
Medical Officer in Charge of Maternity and
Child Welfare.

1920.

CREWE:
THE CREWE STATIONERY COMPANY, LIMITED.



BOROUGH OF CREWE.

HEALTH COMMITTEE.

1920—1921.

Chairman :

COUNCILLOR J. SMITH.

Members :

HIS WORSHIP THE MAYOR, (COUNCILLOR J. W. JONES.)

ALDERMAN J. BRIGGS, J.P.

„ F. MANNING, J.P.

„ C. R. WOOLDRIDGE, J.P.

COUNCILLOR A. BLOUNT.

COUNCILLOR R. J. MANSFIELD.

„ J. BOOTH.

„ W. MICKLEWRIGHT.

„ W. W. COOKE.

„ G. PARSONS.

„ R. P. T. DARLINGTON.

„ J. PEMBERTON.

„ J. R. GOULDEN, J.P.

„ D. H. RAWLINGS.

„ J. HAULDREN.

„ W. C. WHITE.

„ J. N. JACKSON.

„ G. WILKINSON.

MATERNITY & CHILD WELFARE COMMITTEE.

1920—1921.

Chairman :

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„ F. MANNING, J.P.

COUNCILLOR J. BOOTH. MISS SPEAKMAN.

„ A. E. DUTTON. MRS. YATES.

„ H. HATTON. MRS. WARDLE.

„ J. PEMBERTON. MRS. PARKINSON.

DR. C. WILSON, J.P.

MUNICIPAL BUILDINGS,

CREWE,

13th April, 1921.

*To the Chairman and Members of the Health and of the Maternity
and Welfare Child Committees.*

LADIES AND GENTLEMEN,

I have the honour to submit for your consideration the Annual Report on the Health Conditions prevailing in the Borough during the year 1920.

The record for the year is a satisfactory one on the whole. The death rate is low, being 0·9 below the average for the preceding 10 years, while the Birth and Marriage rates are both largely increased. Turning now to less satisfactory matters, we find that the death rate amongst infants—the Infantile Mortality—has increased considerably. One feature of this mortality deserves close attention viz., the high percentage due to “Prematurity,” slightly over one third of the deaths were due to this condition. The year was also noteworthy in regard to infectious diseases. Smallpox, after an interval of seventeen years, again visited the town and while the outbreak was of a mild type and limited in numbers it has emphasized the risks we incur, through the neglect of vaccination, of a dangerous outbreak of this disease. An important railway town such as Crewe lies open to the introduction of infectious disease from all parts of the country. Scarlet Fever also occupied a prominent position, becoming epidemic during the last three months of the year. The type of the disease was in most cases remarkably mild.

In conclusion, I desire to express my thanks to you for the ready and sympathetic support you have always accorded to your staff in all matters affecting the public health. My thanks are also due to my colleagues in your service for the readiness with which they have placed their resources at my disposal, and to the Staff for their willing and loyal co-operation and assistance.

I am,

Ladies and Gentlemen,

Your obedient servant,

J. D. INGRAM,

Medical Officer of Health.

Statistical Summary, 1920.

Area of Borough	...	...	...	...	2,185 acres.
Population at Census, 1911...	...	...	...	...	44,960
Estimated population in middle of 1920	...	...	...	...	47,458
Average number of persons per acre	...	...	...	...	21·7
Birth-rate per 1,000 of the Population	...	...	...	...	22·3
Death-rate „ „ „ „ „	...	...	...	...	11·7
Phthisis death-rate „ „ „	...	...	...	...	0·78
Infantile Mortality per 1,000 living births	...	...	...	...	85
Total occupied houses	...	...	...	...	10,495
Plans of new buildings passed	...	...	...	...	Nil
Assessable Value (General District Rate)	...	...	...	...	£165,045
Rateable Value (Borough Rate)	...	...	...	...	£176,114
Amount raised by 1d. rate	...	...	...	...	£685

Charter of Incorporation granted April 27th, 1877.

Commission of the Peace granted April 7th, 1881.

Adoptive Acts in force in Crewe.

Infectious Diseases (Prevention) Act, 1890, adopted January, 1891.

Public Health (Amendment) Act, 1890, adopted February, 1891.

Infectious Disease (Notification) Act, 1889, adopted October, 1896.

Public Health Acts (Amendment) Act, 1907.

Part II, except Sections 21, 26.

Part III, except Section 37.

Parts IV, V, VI, Part X, Section 95.

The Notification of Births Act, 1907, adopted October, 1913.

Part I.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

Physical Features.

The Borough occupies a site on both sides of the Valley Brook, a tributary of the river Weaver, at a mean elevation of about 170 feet above sea level. The height above sea level varies from 118 feet at the lowest part of the sewage farm to 200 feet at Hightown.

The soil upon which Crewe is built consists of glacial deposits of varying depth, resting in a hollow of the Keuper rocks. At Sydney, for example, which lies on the site of a pre-glacial river valley which must have been excavated when the land stood several hundred feet higher than at present, these deposits have a maximum depth of 320 feet, thus going down at least 160 feet below the present sea level. The surface layers of the ground consist of clays intersected by irregular lines and pockets of sand, one of which has a depth of 30 feet. A boring a little north of Crewe showed 142 feet of clay over-lying brown sand, the clay including some of the laminated variety. Near the Gas Works a boring showed 162 feet of clay, partly glacial and partly Keuper Red Marl with gypsum; in composition it is a dull brownish red or mottled clay containing a few isolated stones, some of which are ice marked. The laminated clays closely resemble these other clays but are stratified deposits, the stratification presenting itself on the minute scale of over 100 laminæ to the inch. These laminated clays were evidently formed in still water, most probably in englacial lakes.

The succession of strata from the surface downwards appears to be:—

Boulder clay, Laminated clay, Drift sand, Keuper Marl—Red Marl with gypsum and rock salt, and thin sandstone. Keuper

Sandstone—Red and white sandstones. Bunter Sandstone—Pebbly sandstones and red mottled sandstones.

A vein of brine extending southwards to Nantwich apparently underlies a part of the Borough and the ground over this vein shows evidence of subsidence. This is most noted in the Sydney area where the total subsidence amounts to 6 feet, the present rate of subsidence being estimated at 3 inches per annum.

Area of Borough.

The Borough has a total area of 2,185 acres and includes the Civil Parish of Monks Coppenhall, with parts of the Civil Parishes of Church Coppenhall, Shavington-cum-Gresty and Wistaston.

Population.

The population at the Census of 1911 was found to be 44,960, the population in the middle of 1920 is estimated at 47,458. The density of the population is therefore 21·7 persons to the acre.

Marriages.

The number of Marriages solemnized in the Borough during the year shows a considerable increase over the number recorded in previous years, as will be seen in the following table.

Year.	No.	Rate.	Marriage-rate in England & Wales.	
1920	511	21·5	...	20·1
1919	480	17·31	...	19·7
1918	285	12·43	...	15·3
1917	293	12·15	...	13·8
1916	300	13·50	...	14·9
1915	375	16·20	...	19·5
1914	332	14·44	...	15·9
1913	296	12·94	...	15·5
10 years average (1904—1913)	267	12·06	...	15·3

Births.

Year	No. Registered.			Birth Rate	
	Males.	Females	Total.	Crewe.	England & Wales.
1920	560	498	1058	22·3	25·4
1919	391	364	755	16·2	18·5
1918	394	383	777	16·9	17·7

Of the births, 41 were illegitimate as compared with 25 in 1919.

Deaths.

The number of deaths registered in the Borough was 507; of these 12 were of persons not ordinarily residing in the town and must be deducted, while the deaths of 61 residents who died outside the Borough must be added. The total number of Crewe residents who died during the year is 556, equal to a death rate of 11·7 per 1,000 of the population. The death rate in England and Wales was 12·4.

DEATHS AT VARIOUS AGES.

		Under				45 and	
		1 year	1-5	5-15	15-25	25-45 upwards	Total
1920	...	90	24	25	32	195	556

The principal causes of death are shown in the following table.

	1919.	% of Total Deaths.	1920.	% of Total Deaths.
1. Respiratory Diseases ...	91	17·9	62	11·1
2. Circulatory Diseases ...	45	8·8	75	13·5
3. Old Age ...	55	10·8	65	11·7
4. Cancer ...	52	10·2	56	10·1
5. Pulmonary Tuberculosis ...	25	4·9	36	6·5
6. Measles ...	1	0·19	4	0·7
7. Prematurity ...	11	2·16	30	5·2
8. Apoplexy ...	37	7·2	42	7·5
9. Diarrhoea and Enteritis (under 2 years) ...	3	0·59	6	1·1
10. Tuberculosis (Other Forms) ...	6	1·18	17	3·05
11. Influenza ...	51	10·03	8	1·4

The further decline of Influenza as a cause of death will be noted. In 1918 this disease was the cause of 19·8 % of the total deaths in that year. Deaths from respiratory diseases are also reduced in number, while deaths from diseases of the circulatory

system show a considerable increase. The number of deaths due to Pulmonary Tuberculosis, which was reduced in 1919, has returned to its more usual position.

WARD DISTRIBUTION OF DEATHS.

Age.	Central Ward.	West Ward.	North Ward.	South Ward.	The Borough.
Under 1 year ...	22	19	31	18	90
1 and under 5 ...	9	6	6	3	24
5 and under 15...	9	6	4	6	25
15 and under 25...	5	9	7	11	32
25 and under 65...	66	43	40	46	195
65 and upwards...	50	56	51	33	190
All ages ...	161	139	139	117	556

Mortality in Relation to Season.

Month.	Total number of deaths.	Death-rate.	Deaths under 1 year.	Infantile Mortality.
January ...	49	12·2	7	78
February ...	50	13·3	5	59
March ...	62	15·4	15	168
April ...	49	12·5	8	92
May ...	49	12·2	10	112
June ...	51	13	8	92
July ...	28	6·9	3	34
August ...	35	8·7	6	67
September ...	37	9·4	4	46
October ...	52	12·9	9	100
November ...	42	10·7	5	57
December ...	52	12·9	10	112
Total ...	556	11·7	90	85

Cancer and other Malignant Disease.

The number of deaths which were registered as due to the various forms of malignant disease was 56, equal to a death-rate of 1·18 per 1,000 of the population. Of the deaths 8 occurred between the ages of 25 and 45, 29 between 45 and 65, and 19 over the age of 65. In 19 cases the disease affected the stomach, liver, etc., in 13 the peritoneum and intestines, in 10 the buccal cavity, in 4 the female genital organs, in 4 the breast, while in the remaining 6 cases other organs were affected.

It will be noted that in 75% of the cases the disease affected some part of the alimentary system, which is probably the most generally and consistently ill-used of all the systems of the body.

The death-rate from cancer still shows a tendency to increase.

1900—1904	...	0·51	1910—1914	...	0·91
1905—1909	...	0·76	1915—1919	...	1·12

Diseases of the Respiratory System.

	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65-75	75 and up-wards	Total
Bronchitis ...	11	—	1	—	—	—	5	11	7	35
Lobar Pneumonia	—	—	—	—	1	1	1	2	—	5
Pneumonia (type undefined)	—	—	—	1	—	2	2	—	—	5
Broncho-Pneumonia	2	2	2	—	1	1	1	—	—	9
Other respiratory Diseases	—	—	—	1	—	—	4	2	1	8
Total ...	13	2	3	2	2	4	13	15	8	62

Deaths from Violence.

16 deaths were registered as due to violence, the causes being Suicide 4; Deleterious Gases 5; Injuries and Fractures 5; Burns and Scalds 2.

The death-rate per 1,000 of the population was 0·33, while the death-rate in England and Wales was 0·48 per 1,000.

Uncertified Deaths.

These are deaths the cause of which have not been certified either by a Medical Practitioner or by the Coroner. There were no uncertified deaths during the year.

Coroner's Inquests.

In 26 cases the cause of death was determined by an inquest held by the Coroner. In 11 of these cases the death was held to be due to Natural Causes, in 12 to Accident or Negligence (such as falls, burns, improper feeding, etc.) and in 4 cases to Suicide.

Poor Law Relief Statistics.

Mr. G. H. Atkinson, Clerk to the Poor Law Guardians, has kindly supplied the following information for the year ending September 30th, 1920 :—

1. Number of indoor poor relieved :—

Able Bodied	...	...	...	...	—
Not Able Bodied	...	...	...	...	541
Insane	...	...	...	...	25
Children	...	...	...	...	191
Total	...	...	...	...	<u>757</u>

2. Vagrants relieved in Workhouse 2,285

3. Number of outdoor poor relieved in the Borough of Crewe 840

4. Vagrants relieved —

5. Cost of outdoor relief in the Borough of Crewe £3312 8s. 0d.

MINISTRY OF HEALTH.

TABLE I.—Vital Statistics of whole district during 1920 and previous years.

Year.	Population estimated to middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Net Deaths belonging to the District.			
		Un-corrected Number.	Nett.		Number.	Rate.*	Of Non-residents registered in the District.	Of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.*					Number.	Rate per 1,000 Nett Births.	Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1913	45652	1009	1011	22.1	478	10.4	7	59	105	103	530	11.6
1914	45964	1034	1045	22.7	479	10.39	6	66	93	88	539	11.7
1915	45825	1033	1042	22.6	599	12.8	10	73	124	119	662	14.4
1916	45825	895	901	19.6	508	11.0	8	63	75	83	563	12.3
1917	45825	761	764	16.7	506	11.0	14	61	62	81	553	12.1
1918	45825	768	777	16.9	632	13.7	12	76	75	97	696	15.6
1919	46561	746	755	16.2	450	9.6	10	68	41	54	508	10.9
1920	47458	1100	1058	22.3	507	10.4	12	61	90	85	556	11.7

* Rates in Columns 5, 7 and 13 calculated per 1000 of estimated population.

Area of District in acres (land and inland water) ... 2185	Total Population at all ages ...	44960
	Number of inhabited houses ...	9955
	Average number of persons per House ...	4.50

} At Census of 1911.

MINISTRY OF HEALTH.

TABLE II.—Causes of, and Ages at, Death during 1920.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
All Causes { Certified	556	90	10	14	25	32	64	131	190	
Uncertified	...	...	...	...	...	...	...	...	...	
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	4	...	3	...	1	...	...	...	...	...
Scarlet Fever ...	4	...	...	2	2	...	...	...	...	3
Whooping Cough ...	2	1	1	...	...	...	...	...	...	...
Diphtheria and Croup ...	4	1	...	1	2	...	...	...	...	3
Influenza ...	8	...	...	...	1	1	1	4	1	...
Erysipelas ...	3	...	...	...	...	2	1	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	36	...	...	...	1	10	13	11	1	4
Tuberculous Meningitis ...	7	1	1	2	3	...	...	...	...	...
Other Tuberculous Diseases ...	10	1	1	1	4	2	...	1	...	1
Cancer, Malignant Disease ...	56	...	...	...	...	1	7	29	19	2
Rheumatic Fever ...	1	...	...	...	...	1	...	...	...	...
Meningitis ...	2	...	...	...	1	...	1	...	...	...
Organic Heart Disease ...	56	1	...	...	1	6	8	18	22	...
Bronchitis ...	35	11	...	1	...	...	...	5	18	...
Pneumonia (all forms) ...	21	2	2	2	1	2	4	5	3	1
Other Diseases of Respiratory Organs ...	8	...	...	...	1	...	...	4	3	1
Diarrhœa and Enteritis ...	9	6	...	...	...	...	...	1	2	...
Appendicitis & Typhlitis ...	4	...	...	...	1	1	1	1	...	3
Cirrhosis of Liver ...	1	...	...	...	...	...	...	1	...	...
Alcoholism ...	2	...	...	...	...	...	1	1	...	...
Nephritis and Bright's Disease ...	7	...	...	...	...	1	1	3	2	...
Other Accidents and Diseases of Pregnancy and Parturition ...	4	...	...	...	...	...	4	...	...	2
Congenital Debility and Malformation, including Premature Birth ...	50	50	...	...	...	...	...	...	...	1
Violent Deaths, excluding Suicide ...	12	5	...	...	...	...	5	1	1	2
Suicide ...	4	...	...	...	...	...	1	2	1	...
Other Defined Diseases ...	205	11	2	5	6	5	15	44	117	13
Diseases ill-defined or unknown ...	1	...	...	...	...	...	1	...	...	...
Total ...	556	90	10	14	25	32	64	131	190	36
Sub-Entries.	28 (a) Poliomyelitis	...	...	...	...	...	...	...	...	
included	* Lobar Pneumonia	5	...	...	...	1	1	1	2	
in above figures.	* Pneumonia (type undefined)	5	...	...	1	...	2	2	...	

* Sub-Entries should here be made for other deaths which it is desirable to distinguish, on account of their administrative importance or special interest (e.g., any deaths from Anthrax, Typhus or Glanders, which have been included under 28, *Other Defined Diseases*; or deaths from Pneumonia other than Broncho-Pneumonia which have been included under 17, *Pneumonia all forms*).

METEOROLOGY.—Mr. M. Morgan, the Curator of Queen's Park, has kindly furnished the figures for the following table:—

1920	Total Rainfall in inches	No. of Rainy Days	PREVAILING WIND IN DAYS.								MEAN TEMPERATURE.			
			N.	S.	E.	W.	N.W.	N.E.	S.W.	S.E.	Max'm in Shade	Min'm in Shade	One foot deep	Four feet deep
January	2·75	14	—	5	1	1	3	—	14	7	44·1	34·6	41·5	42·0
February	3·31	12	—	5	—	3	5	1	6	8	47·5	34·3	42·0	43·5
March ...	2·61	11	1	12	—	2	6	1	4	5	52·3	35·8	44·2	42·8
April ...	3·95	22	—	4	2	4	8	2	4	6	56·2	40·9	50·1	45·5
May ...	3·95	12	—	3	4	4	5	2	10	3	65·5	44·0	54·9	47·7
*June ...	2·83	8	—	4	3	2	3	2	8	7	74·7	46·7	60·6	49·5
July ...	5·38	21	1	10	—	7	4	—	4	3	69·9	50·0	62·0	56·4
*August...	1·17	11	3	2	1	6	12	—	4	2	68·9	47·6	60·6	57·0
Sept'ber	2·57	10	3	9	1	6	3	—	6	2	66·7	46·0	58·9	56·1
October...	1·63	8	—	3	—	—	—	5	1	22	59·6	41·0	53·8	54·3
*Nov'ber	0·45	4	1	4	1	—	—	3	6	14	50·0	36·0	46·0	50·0
December	2·32	10	11	1	—	—	3	5	4	7	42·0	33·0	42·0	45·0
Total ...	32·92	143	20	62	13	35	52	21	71	86	—	—	—	—

The rainfall in 1920 was 5·16 inches more than in 1919.

* No record of wind on one day during month.

† No record of wind for 2 days during month.

Part II.

SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.

The town's supply of water is obtained from Artesian wells situated at Whitmore, Staffs., and is provided by the London and North Western Railway Company. As will be seen from the following analysis it is a pure water of excellent quality.

Analysis.

Appearance in Tube.			Clear and Colourless.		
Smell when heated to 100° F.	...	...	Nil.		
Total solid matter at 212° F....	...	...	12·4 grains per gallon.		
Non-volatile matter	...	...	11·0	"	"
Chlorine in chlorides	...	...	1·3	"	"
Phosphoric Acid	...	...	Nil.		
Nitrogen in Nitrites	...	...	Nil.		
Nitrogen in Nitrates	...	...	·13	"	"
Free Ammonia...	...	...	·0007	"	"
Albuminoid Ammonia	...	...	·0056	"	"
Oxygen absorbed in 15 minutes at 60° F.			Nil.		
" " " 3 hours at 60° F.			·0112	"	"
" " " 1 hour at 212° F.			Nil.	"	"
Hardness, Clerk's Scale. Total 8°	...		Permanent 2·3°		
Baccillus Coli in 10 c.c. of water	...		None.		

Year	No. of gallons supplied.	No. of Inhabited Houses.	Population.	Gallons supplied per house per day.	Gallons supplied per head per day.
Average 1895—1904	188,427,130	8,565	40,434	59·96	12·65
Average 1905—14	202,641,284	10,018	44,572	55·38	12·31
1919	200,377,570	—	46,561	—	11·78
1920	235,596,580	10,495	47,458	61·4	13·6

The quantity of water in this table is the quantity actually paid for to the Railway Company, with the addition of 20,500,000 gallons, the estimated amount supplied direct by the Company to their own property.

Rivers and Streams.

There are two main streams in the town, the Valley Brook and the North Brook, the latter of which has an occasional tributary, the Leighton Brook.

The North Brook is polluted by the overflow of sewage from the Northern Outfall Sewer which occurs after even a slight fall of rain.

Drainage and Sewerage.

The sewage from the Southern section of the town is efficiently dealt with by the Sewage Works at the Southern Outfall. These have been in continuous operation since their opening in 1914. At these works the sewage first enters the screening chambers provided with power-driven screens where the grosser solids are removed, then into the detriturs or settling tanks. From these the sewage passes into the septic tanks, where the highly complex organic matter is broken down into simpler bodies; from the septic tanks the sewage passes through an automatic distributor to the percolating beds over the surfaces of which it is distributed by power-driven sprinklers. In these percolating beds the products of the decomposition which occurred in the septic tanks are oxidised into harmless substances and the effluent after passing through the humus tanks is discharged into the Valley Brook. As will be seen from the following results of the analysis of this effluent the Sewage Works carry out their function very satisfactorily. The results are expressed in grains per gallon.

Date of Sample.	1917	1918	1919	1920
Appearances in tube ...	fairly clear slight yellow- ish tinge	slightly tinted yellowish	slightly tinted	cloudy
Total Solid matter at 212° F.	59.6	56.6	50.0	46.0
Chlorine as Chlorides ...	7.0	5.5	5.5	4.3
Nitrites ...	heavy traces	fairly heavy traces	heavy traces	trace
Nitrates ...	1.15	2.47	1.64	1.31
Free Ammonia ...	0.20	0.12	0.40	0.04
Albuminoid Ammonia ...	0.12	0.14	0.10	0.06
Oxygen absorbed in 4 hours at 60° F.	0.24	0.54	0.57	0.78

Sanitary Inspection of District.

Annual Report of the Chief Sanitary Inspector and Cleansing Superintendent.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

The following is the report on the work of the Sanitary Department for the year 1920.

Sanitary Arrangements.

The following table gives approximately the number of forms of closet accommodation in the town at the end of the years 1917, 1918, 1919 and 1920.

			1917	1918	1919	1920
Water-closets	...	...	7,592	7,598	7,758	7,833
Waste Water-closets...	...	...	1,002	1,002	1,002	1,002
Pail Closets	...	...	2,847	2,911	2,787	2,787
Covered Privy Middens	...	...	184	114	106	102
Total	...	...	11,625	11,625	11,653	11,724

The table to follow shows the character of the work carried out during the year. The cost of both team and manual labour are given in detail and records in previous years are added for comparison. The refuse is disposed of at the various tips in the town.

Trade Refuse.

This is removed at a charge of 6s. 8d. per load, which amount covers the actual cost of wage and team labour only, no charge being made for the necessary adequate supervision. The amount received during the past year was £113 16s. 11d.

Report on Dust-bins.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have to report that there is a marked tendency at the present time of supplying wooden tubs of all shapes and sizes in place of the recognised galvanized iron dustbins, for the storage of household refuse.

The tubs that are being used consist chiefly of oil barrels, some with one end knocked out, while others are sawn in two with handles fixed for removing purposes.

Apple barrels are also being utilised and handles in a few instances are placed at the top of the barrels, which as will be readily understood, are useless for the scavengers to make use of.

As far as can be ascertained the total number of wooden receptacles in use in the Borough at the present time is approximately 472, of which the L. & N. W. Rly. Co. have at least 300.

There can be no doubt that the very high cost of the galvanized iron ashpails is the cause of so many people making use of the above-mentioned substitutes.

I should be glad for the Committee's instructions in the matter.

Yours obediently,

H. Y. STAZICKER.

Report on Inspection, etc., of Refuse Disposal Plant.

To the Members of the Health Committee.

GENTLEMEN,

Sheffield Plant.

(1) As instructed by you at your meeting on 10th June, 1920, we visited Messrs. Mortimore Ltd., Engineers, Manchester, on the 5th August last and discussed with Mr. Mortimore the question of a Disposal Plant for Crewe, on the lines of the Sheffield Plant. Mr. Mortimore supplied us with further details as to the working of the Sheffield Plant and informed us that the calorific value of the cinder residue had been found to be about $\frac{1}{3}$ that of ordinary

coal. He also informed us that the analysis of the Sheffield refuse was as follows :—

Dust	...	...	...	...	...	31·1%
Small Cinders	...	...	...	...	...	27·1%
Large Cinders	...	...	...	...	...	18·5%
Debris	...	...	...	...	...	14·3%
Tins	...	...	...	...	...	1·0%
Rags	...	...	...	...	...	0·4%
Paper	...	...	...	...	...	3·6%
Vegetable Matter	...	...	...	...	...	3·7%
Sundry	...	...	...	...	...	0·3%

He further showed us the draft and plans which his Firm have in hand for the Barnsley Corporation and also the preliminary plans for the large plant dealing with 500 tons of refuse per day, which is to be installed by the Sheffield Corporation. He stated that he was prepared to make an offer for the construction of a Plant for the Crewe Corporation and that he was not in any way tied to use any particular machinery but would include any plant which might be required by the Committee, in his Tender.

Bury Plant.

(2) On the 2nd September we visited the Bury Refuse Disposal Plant and were shown over the plant by Mr. Turner, the Bury Cleansing Superintendent. The present plant is of a purely temporary nature and for experimental purposes only, but will eventually be reconstructed in a more permanent and convenient manner.

The refuse on arrival is passed through a 3" semi-vertical screen and thence passes through a rotary screen which separates the dust from the cinders and from the tailings. The cinders are further separated to some extent from fibrous refuse by means of a primitive gap separator which does not, however, in our opinion do its work so well as the Sheffield water separator. Diseased meat, &c., is passed through a Gannow Pulverisor and is mixed with night soil and sold to farmers as manure. The Superintendent

informs us that they can at present readily find a market for paper at £4 per ton, cinders at 10/- per ton and manure at 1/6 to 5/- per ton.

The analysis of the Bury refuse is as follows :

Fine dust	...	...	...	...	40.20%
$\frac{3}{4}$ " Cinders	...	...	...	...	51.50%
Bricks, pot, shale &c.	...	...	...	...	2.93%
Tins	...	...	...	...	1.01%
Rags	...	...	...	...	0.44%
Glass	...	...	...	...	0.99%
Vegetable Matter	...	...	...	...	1.00%
Paper	...	...	...	...	1.33%
Sundry	...	...	...	...	0.60%

There are also present in small quantities bones, scrap iron, fish offal, carpets, oil cloths, boots, etc.

Recommendations.

(3) As a result of our investigations we recommend the Health Committee to ask Messrs. Mortimore to submit a Tender for a Plant for dealing with 50 tons of refuse per day, on the lines of the Sheffield Plant, but with the addition of a Gannow Pulveriser for the disposal of fish offal, diseased meat, etc., and with the addition of a Tin Baling and Paper Baling Plant as manufactured by Messrs. Spencer and Cooke, of Stalybridge. We consider that a small Incinerator, for dealing with animals dying from contagious diseases, should be added to the plant in order to make it self contained and complete.

In the design of the Plant all possible labour-saving devices should be incorporated. In our investigations we have not taken into account the question of the disposal of night soil, as that will no longer be required when the conversions to the Water Carriage Systems, which the Corporation have in hand, are completed.

We would recommend to the Committee that as there is no clause in the conveyance of the land which prevents it, the most suitable site in our opinion for this Disposal Plant is on the Electricity Works land in the vicinity of Electricity Street.

Signed,

J. SMITH,

Chairman of the Health Committee.

L. ST. G. WILKINSON,

Borough Engineer and Surveyor.

Municipal Buildings,

H. Y. STAZICKER,

CREWE.

Chief Sanitary Inspector and

8th October, 1920.

Cleansing Superintendent.

General Remarks.

Refuse Removal.

On referring to the table given it will be found that the amount of refuse removed during the year 1920 is 1,146 loads more than during 1919, which equals 1,557 tons extra. This increase is due chiefly to the inferior quality of coal.

Taking the number of houses in the Borough as being 10,578, this gives the total amount collected from each house as $28\frac{1}{4}$ cwt. This is a very high figure and could be well reduced by 25 per cent. if care was exercised by householders.

With the idea of securing the hearty co-operation of householders in this respect, a card was drafted and printed and which contained the following matter:—

PLEASE HANG THIS CARD WHERE IT CAN EASILY BE READ.

BOROUGH OF CREWE.

THE HEALTH COMMITTEE earnestly ask for the hearty co-operation of Householders in general and all Housewives in particular, in order to render the removal and disposal of house refuse as efficient and economical as possible.

**You can reduce the quantity
of refuse to be removed by
obeying the following 'Dont's'**

- Don't** put ANY LIQUID into the dustbin, tub or ashpit—it tends to destroy the dustbin and it is not fair to the Landlord.
- Don't** put unriddled ashes into the receptacle provided—fine dust is an excellent fertilizer for the garden—reduce your coal bill and help to create a more frequent collection.
- Don't** put GARDEN REFUSE into the bin—bury it in your garden and your garden will benefit.
- Don't** put VEGETABLE REFUSE into the bin— it is a valuable food for pigs and poultry. If not used thus it should be buried in your garden or burnt on the kitchen fire.
- Don't** put WASTE PAPER into the dustbin—use it to light the fire or burn it on the fire.

HOUSEWIVES!

Observe these few 'DONT'S'
and you yourselves will benefit.

H. Y. STAZICKER,

Health Department,
Municipal Buildings,
Crewe,
Nov., 1920.

Chief Sanitary Inspector
& Cleansing Superintendent

On its submission to the Committee it was thought that the improvement achieved would not warrant the cost of printing and distribution.

Dustbins v Ashpits.

Another point which necessitates emphasis is the increased cost of removing refuse from houses using ashpits and those using dustbins.

The comparison is as follows:—

Total number of houses	...	10,578
Total number of houses with Ashpits		2,684
Total number of houses with Dustbins		7,792
Average cost of removing 1 Dustbin		3 $\frac{3}{4}$ d.
(Wages and team labour only).		
Average cost of emptying 1 Ashpit	...	1/6 $\frac{3}{4}$ = 9 $\frac{1}{2}$ d per
(Wages and team labour only).		house.

This would mean a saving of 6d. per house per collection if ashpits were converted to dustbins, and would result in a saving of approximately £1,745 per year. This point was raised at a recent Committee Meeting but the question was deferred for 12 months.

Requests received either in respect of nightsoil, household or trade refuse removal, have received immediate attention.

TABLE shewing total cost, number of loads, etc., for day and night work.

MONTH, 1920.	DAY WORK.				NIGHT WORK.			
	Wages	Horse Hire	Total	Average cost per Working Day	Wages	Horse Hire	Total	Average cost per Working Night
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January ...	328 10 1	84 5 10	412 15 11	15 5 9	88 16 3	16 0 10	104 17 1	4 0 7 ³ / ₄
February ...	312 18 9	79 6 8	392 5 5	16 6 11	77 4 8	14 0 0	91 4 8	3 16 0 ¹ / ₂
March ...	333 12 11	84 11 8	418 4 7	16 1 9	89 12 0	16 6 8	105 18 8	3 15 8
April ...	317 16 6	81 13 4	399 9 10	15 7 3	90 8 0	15 3 4	105 11 4	4 1 2 ¹ / ₄
May ...	309 5 9	77 5 10	386 11 7	14 17 4 ¹ / ₂	89 7 1	15 3 4	104 10 5	4 0 4 ³ / ₄
June ...	296 3 7	74 7 6	370 11 1	14 5 0 ¹ / ₂	89 18 4	15 3 4	105 1 8	4 0 10
July ...	330 5 8	77 5 10	407 11 6	15 1 11	89 15 4	15 3 4	104 18 8	3 17 8 ³ / ₄
August ...	316 16 8	74 13 4	391 10 0	15 1 1 ³ / ₄	93 9 8	15 15 0	109 4 8	4 0 11
September ...	322 10 0	74 12 6	397 2 6	15 5 5 ¹ / ₂	98 5 2	15 3 4	113 8 6	4 7 3
October ...	347 14 5	81 6 8	429 1 1	16 10 0 ¹ / ₂	97 13 4	15 3 4	112 16 8	4 6 9 ¹ / ₂
November ...	353 0 10	82 5 0	435 5 10	16 14 10	101 2 8	15 15 0	116 17 8	4 6 7
December ...	411 10 6	85 9 2	496 19 8	18 8 1 ¹ / ₂	110 10 10	15 15 0	126 5 10	4 13 6 ¹ / ₂
Total ...	3980 5 8	957 3 4	4937 9 0	15 15 6	1116 3 0	184 12 5	1300 15 10	4 2 0

MONTH 1920.	No. of Loads Removed.		Average Cost per Load.	
	Day Work	Night Work	Day	Night
	Day Work	Night Work	s. d.	s. d.
January ...	1057	185	7 9 ¹ / ₄	11 4 ¹ / ₂
February ...	877	173	8 9 ¹ / ₄	10 6 ¹ / ₂
March ...	1095	166	7 7 ³ / ₄	12 9
April ...	1009	188	7 11	11 2 ³ / ₄
May ...	955	185	8 1	11 3 ¹ / ₄
June ...	957	189	7 8 ¹ / ₄	11 1 ¹ / ₂
July ...	962	185	8 5 ¹ / ₄	11 4
August ...	947	194	8 3 ¹ / ₄	11 3
September ...	950	187	8 4 ¹ / ₂	12 1 ¹ / ₂
October ...	1012	185	8 5 ¹ / ₄	12 2 ¹ / ₄
November ...	1049	191	8 3 ¹ / ₄	12 2 ¹ / ₄
December ...	1080	199	9 2 ¹ / ₄	12 8 ¹ / ₄
Total ...	11,950	2,227	8 3	11 8

TABLE shewing number of privies and dustbins emptied and cost per load, etc.

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Privies and Ashpits emptied ...	24,466	22,973	24,356	20,732	21,651	36,326	39,147	37,226	39,563	46,090
Privy Pails emptied...	151,770	150,467	145,262	149,688	142,130	139,186	138,944	140,659	142,576	141,841
Dustbins ...	219,981	219,141	227,078	233,369	235,503	190,363	142,449	141,450	150,826	182,951
Paper Bags ...	23,677	28,398	26,898	11,915	5,912	1,696	94	66	1	413
Number of Loads removed—										
Day Work ...	11,127	11,148	11,177	11,412	11,416	9,915	9,030	8,921	10,704	11,950
Night Work ...	2,644	2,658	2,635	2,361	2,352	2,308	2,248	2,263	2,271	2,227
	13,771	13,806	13,812	13,773	13,768	12,223	11,278	11,184	12,975	14,177
Cost of removal—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Total cost ...	2781 17 10	2769 6 9	2791 18 8	2816 10 4	2924 8 9	2699 6 10	2845 3 3	3381 9 11	4916 4 7	6376 17 3
Cost per load ...	0 4 0 $\frac{1}{2}$	0 4 0	0 4 0 $\frac{1}{2}$	0 4 1	0 4 2 $\frac{1}{4}$	0 4 5	0 5 0 $\frac{1}{2}$	0 6 0 $\frac{1}{2}$	0 7 6 $\frac{1}{2}$	0 8 11 $\frac{1}{2}$
Cost of Day Work per load ...	0 3 4 $\frac{3}{4}$	0 3 6	0 3 6 $\frac{1}{2}$	0 3 7	0 3 9 $\frac{1}{4}$	0 3 11 $\frac{1}{4}$	0 4 6 $\frac{3}{4}$	0 5 5 $\frac{3}{4}$	0 7 0 $\frac{1}{2}$	0 8 3
Cost of Night Work per load ...	0 6 1 $\frac{1}{2}$	0 6 1 $\frac{1}{2}$	0 6 1 $\frac{1}{2}$	0 6 4	0 6 5 $\frac{1}{2}$	0 6 4 $\frac{1}{4}$	0 6 10 $\frac{1}{4}$	0 8 2 $\frac{3}{4}$	0 9 7 $\frac{3}{4}$	0 11 8

Sanitary Inspections.

The following is a tabulated statement of the work carried out by the department for the year ending 31st December, 1920 :—

A Number and Nature of Inspections Made.	Number.	B Number of Notices Served.			C Result of Service of Notice.		
		Statutory.	Informal.	Notices compiled with.	Remaining in hand.	Prosecutions.	
						Instituted.	Pending.
1. Dwelling Houses ...	450	2	138	136	4	...	...
2. Back-to-Back Houses ...	...	...	...	...	...	...	...
3. Tents, Vans, Sheds, &c. ...	52	...	...	...	...	...	...
4. Courts, Yards, Passages ...	30	...	15	15	...	...	...
5. Privy-Middens, Earth or Pail Closets ...	339	96	450	496	50	...	...
6. *House Drainage ...	652	12	169	177	4	...	...
7. Ditches, Watercourses, &c. ...	24	..	16	16	...	...	...
8. Offensive Accumulations ...	50	...	13	13	...	...	...
9. Keeping of Animals ...	20	...	4	4	...	...	...
10. Offensive Trades ...	98	...	8	8	...	2	...
11. (a) Slaughterhouses ...	894	...	48	48	...	...	...
(b) Other Places where Food is produced or sold ...	139	...	...	...	...	...	...
12. Piggeries ...	71	...	2	2	...	...	...
13. (a) Dairies ...	...	...	...	...	...	...	...
(b) Cowsheds ...	39	...	92	92	...	...	...
(c) Milkshops ...	20	...	...	...	...	...	...
14. (a) Factories ...	168	...	8	8	...	...	...
(b) Workshops ...	163	..	6	6	...	...	...
(c) Workplaces ...	22	...	2	2	...	...	...
(d) Outworkers ...	42	...	...	...	...	...	...
15. Bakehouses ...	59	...	8	8	...	...	...
16. Common Lodging Houses ...	277	...	14	14	...	...	...
17. Channel Shutes ...	...	...	...	...	...	...	...
18. Smoke Observations ...	2	...	2	2	...	...	...
19. Infectious Diseases In- quiries and Revisits ...	341	...	75	75	...	...	...
20. Miscellaneous ...	1,553	6	140	135	11	...	...
TOTAL	5,503	116	1,210	1,267	69	2	...
*House Drains Tested—no defects ...	10	...	...	...	...	...	...
House Drains Tested— found defective ...	12	...	12	12	...	...	...
Eaves and Rain-water spouting ...	206	...	40	40	...	...	...
Ventilating Shafts (drains)	2	...	1	1	...	...	...
TOTAL	230	...	53	53	...	...	...

Slaughter-houses.

	In 1914.	In January, 1920.	In December, 1920.
Registered	6	6	6
Licensed	6	6	6
Total	<u>12</u>	<u>12</u>	<u>12</u>

As mentioned in previous reports, most, if not all of the Slaughter-houses are unsatisfactory and the only remedy is to supplant them with an up-to-date Public Abbatoir.

Cowsheds.

These remain the same, the number being 46.

Frequent inspections are made. Cowkeepers do not exercise sufficient care and attention in the cleanliness of the udders of the cows before commencing to milk, consequently complaints are received from house-holders about being supplied with dirty milk.

Dairies and Milkshops.

Number of premises on the register where milk is retailed is 63.

Common Lodging-Houses.

There are 7 registered Common Lodging-houses in the Borough, this being the same number as last year. They are frequently inspected and kept in accordance with the Bye-laws.

Offensive Trades.

The number of offensive trades is 3, involving 6 separate premises.

- 1 Tripe-boiling business.
- 1 Gut-scraping business.
- 4 Marine store dealers.

These are frequently inspected and are governed by Bye-laws, cleanliness being maintained in the two first trades. In respect to the remaining trades it is very difficult owing to unsuitable buildings to obtain satisfactory conditions.

Disinfection.

During the year the following were disinfected :—

Houses, 265.

Schools, 3.

The following articles were destroyed by request of the owners :—3 beds, 4 mattresses, 8 pillows and 1 bolster.

Cinemas and Theatres

There are 4 Cinemas and 1 Theatre in the Borough, the names and situations are as follows, and these receive the necessary supervision.

Name.	Situation.
Lyceum Theatre	Heath Street
Empire Cinema	Heath Street
Kino	Co-operative Street
Queen's Hall	High Street
Palace	Edleston Road

Schools.

The Sanitary conveniences at all Schcols are inspected regularly.

The quantities of disinfectants used during the year were :—

Izal 30 gallons.	Izal Powder ... 1 ton.
Sanitas Fumigators 3 gross.	Formaldehyde ... 5½ galls.
Sulphur Candles 1 gross.	Sanitary Dry Lime... 3 tons.
Creocide Disinfectant 40 gallons.	Carbonic Powder ... 1 ton,

Prosecutions.

Nature of Offence.	Result of Proceedings.
1. Exposure of Sheep in contravention to the Sheep Scab Order ...	Fined £2.
2. Sale of unsound Meat.	Dismissed with costs.
3. Establishment of an Offensive Trade.	Fined 40/- and costs.
4. Do.	Fined 40/- and costs, but conviction squashed on an Appeal being made.

Vans and Tents.

52 inspections were made during the year, special attention being made to the water supply, and sanitary conveniences, and a creditable standard of cleanliness is maintained.

Meat and Food Inspection.

Owing to the decentralisation of slaughter-houses a large amount of time has been spent in the inspection of meat at the private slaughter-houses still existing in the borough.

At the present time meat inspection is carried out by the staff of the Sanitary Department i.e., the Chief Sanitary Inspector and the two Assistant Inspectors, aided when required by the Medical Officer of Health. In doubtful cases the expert opinion of the Veterinary Surgeon is obtained. It need hardly be pointed out that the existence of 12 scattered slaughter-houses prevents the inspection of all meat at the time of slaughter. This difficulty is minimised by the readiness with which the butchers report any unsound meat they may possess.

Summary of Meat, etc., Condemned.

DISEASE.	LBS.								TOTAL.	
	Beef	Mutton.	Pork.	Veal.	Vege- tables.	Bacon	Fish.	Corned Beef.		Miscell- aneous.
Tuberculosis	9065	...	415	...	...	...	...	...	...	9470
Cancer	32	...	...	...	...	...	...	...	...	32
Abscesses	372	...	...	...	...	...	...	...	...	372
Putrefaction	2515	4679	162	...	270	71	9	21	4	7731
Dropsical	964	...	...	...	...	...	...	...	...	964
Inflammation	...	...	220	...	...	...	...	...	...	220
Bruised	1053	...	625	...	...	...	...	...	...	1688
Immaturity	...	...	...	112	...	...	...	...	...	112
Bone Taint	174	...	...	...	...	...	...	...	...	174
TOTAL	14175	4679	1422	112	270	71	9	21	4	20763
TONS.				CWTs.		Qrs.		LBS.		
9				5		1		15		

Cooked Meat Preparations.

Frequent inspections have been made to enforce cleanliness and purity.

Fruit and Vegetables.

270 lbs. found to be unsound were surrendered and destroyed.

Bakehouses.

59 visits have been made, and a high standard of cleanliness enforced.

Ice Cream Shops.

Many inspections are made and cleanliness of premises and utensils rigidly enforced.

Number of visits made, 53.

Fried Fish Shops.

243 visits have been made and a creditable standard of cleanliness is maintained, special attention being given to the quality of fish and the early removal of fish offal.

Contagious Disease Animals Acts.

The undermentioned Acts have come into force during the year 1920. Sheep Scab Order, Sheep (Double Dipping) Order, Foot and Mouth Disease Order, Epizootic Abortion Order, Glanders or Farcy Order.

Markets.

Number of Markets held...	...	...	52
Number of Markets attended	...	...	52
Number of Horse Sales attended	...	...	14
Number of Markets disinfected	...	...	2

Swine Fever Order.

Licences issued	...	...	...	...	2,021
Licences received	...	...	...	...	195
Animals refused admission to Markets on account					
of being dirty and unthrifty	...	...	...	...	38
Letters to other Authorities re suspected Swine					
Fever cases	...	...	...	...	1

Sheep Scab Order.

Licences issued	53
Declarations received	121
Suspected Sheep Scab cases	1
Confirmed Sheep Scab cases	1
Prosecutions (defendant fined 40/-) ...	1

Anthrax Order.

Suspected cases	2
Confirmed cases	—

Foot and Mouth Disease Order.

Licences issued	72
Licences received from other Authorities	45

Petroleum Acts.**Petrol.**

Applications received	12
Licences granted	12
Amount received	£3

Carbide of Calcium.

Applications received	11
Licences granted	11
Amount received	£2 15s. 0d.

Hackney Carriages.

Statement showing the number of Licences issued from January 1st, 1920, to December 31st, 1920:—

Class of Licence.	1920.			1919.		
	No. issued	Rate.	Amount Received.	No. issued	Rate.	Amount Received.
		s. d.	£ s. d.		s. d.	£ s. d.
Hackney Carriage	4	5 0	1 0 0	7	5 0	1 15 0
Hackney Carriage Driver... ..	2	1 0	0 2 0	1	1 0	0 1 0
Omnibus	33	5 0	8 5 0	33	5 0	8 5 0
Omnibus Drivers	35	1 0	1 15 0	42	1 0	2 2 0
Omnibus Guards	35	1 0	1 15 0	23	1 0	1 3 0
Taxi-cabs	5	5 0	1 5 0	7	5 0	1 15 0
Taxi cab Drivers	5	1 0	0 5 0	7	1 0	0 7 0
			14 7 0			15 8 0

These refer to the wooden huts built by the London and North Western Railway Company.

Notices were served for the cleansing and lime-washing of 71 houses. All of these have been complied with. In 9 instances a second notice had to be issued.

SHOPS ACT.

No. of Shops registered.—896.

No. of visits.—24.

Factories and Workshops.

There are 92 factories and 236 workshops in the Borough, this being an increase of 1 of the former and 4 of the latter.

The following table shews the number of Factories in the Borough

Industry.	Central	West	North	South	Borough
Aerated Water Manufactory ...	1	—	1	—	2
Bottling & Herb Beer Manufactory	4	—	—	1	5
Brewery	1	—	—	—	1
Builder	2	1	1	1	5
Baker	2	—	2	—	4
Bootmaker	6	2	3	3	14
Brick Works	—	1	—	—	1
Clothing Factories	2	2	6	3	13
Cabinet Maker and Joiner ...	3	1	1	—	5
Cattle Medicine	—	—	—	1	1
Chaffcutting	—	2	—	—	2
Electric Lighting... ..	3	—	—	—	3
Fustian Cutting	1	1	—	—	2
Firewood	—	1	—	—	1
Ice Cream Manufacturers ...	1	—	—	—	1
Ironfounder	1	—	—	—	1
Loco. Engine Works	—	1	—	*	1
Letterpress Printing	3	2	—	1	6
Laundry	1	—	2	—	3
Machine Smith	—	—	1	—	1
Picture Framer	1	—	—	—	1
Sausage Maker	8	2	—	4	14
Saw Mill	1	—	—	—	1
Toy Making	—	—	—	1	1
Wheelwright, Woodturner ...	1	—	2	—	3
Totals	42	16	19	15	92

* These works are also partly in the South Ward.

The following table of workshops shews the number in each Ward, and the nature of the trades carried on :

Trade.	Central	West	North	South	Borough
Artificial Teeth Manufacturers ...	6	1	—	1	8
Bakers and Confectioners... ..	16	8	6	8	38
Bootmakers	6	6	5	5	22
Blacksmiths	2	1	2	1	6
Cabinet Makers and Joiners ...	8	3	—	2	13
Cycle Repairers	4	2	2	3	11
Dressmakers and Milliners ...	22	8	9	17	56
Gut Scraper	—	1	1	—	2
Herb Beer Manufacturers & Bottlers	1	2	—	—	3
Hosiers	4	1	2	1	8
Ice Cream Manufacturers... ..	11	5	6	4	26
Laundry	—	—	1	1	2
Picture Framers	2	1	—	—	3
Rag Stores	1	—	3	—	4
Saddlers	—	—	1	1	2
Shirtmakers	1	—	—	—	1
Stonemason	—	—	2	1	3
Scales Manufacturer	—	—	—	1	1
Sweet Boiling	1	—	—	—	1
Tailors	8	2	1	4	15
Tinsmiths	3	—	—	1	4
Watchmakers and Jewellers ...	6	1	—	—	7
Wheelwright	—	—	1	1	2
Totals	102	42	42	52	236

GENERAL SANITATION.—The condition of the workshops generally has been very satisfactory, although there were a few exceptions with regard to cleanliness. 12 notices relating to lime-washing were sent out and complied with.

HOMEWORK.—Lists of homeworkers have been received from the following :

J. E. Wilson & Sons	...	...	...	12 outworkers.
H. Taylor	...	...	...	2 „
Stewart, Clothiers Ltd., Tailors	...	...	...	2 „
J. Harding & Sons	...	...	...	8 „
S. J. Watts & Co.	...	...	...	7 „
R. Hammett	...	...	...	3 „
A. Heap & Co.	...	...	...	7 „

The annual statistical return to the Secretary of State, which follows, gives a summary of the work done during the year.

1.—Inspection.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTOR
OF NUISANCES.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ... (Including Factory Laundries)	168	8	...
Workshops ... (Including Workshop Laundries)	163	6	...
Workplaces ... (Other than outworkers' premises included in part III.)	22	2	...
TOTAL ...	353	16	...

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts:</i> *				
Want of cleanliness	12	12	...	...
Want of ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of drainage of floors	...	...	...	...
Other nuisances	...	...	...	...
Sanitary accommodation { insufficient	...	...	...	...
{ unsuitable or defective	4	4	...	...
{ not separate for sexes	...	...	...	...
<i>Offences under the Factory & Workshop Act:</i>				
Illegal occupation of underground bakehouses (S. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (SS 97 to 100) ...	...	...	...	...
Other offences: (Excluding offences relating to out-work which are included in Part III.)	...	...	...	...
Total	16	16	...	...

* Including those specified in Sections 2, 3, 7, and 8, of the Factory Act, as remedied under the Public Health Acts.

3.--Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION.											OUTWORKERS IN UNWHOLESALE PREMISES, SEC. 108.				OUTWORK IN INFECTED PREMISES SECTION 109, 110.				
	Lists received from Employers.					Addresses of Outworkers.						Inspection of Outworkers' Premises.								
	Once in the year.					Prosecutions.														
	Twice in the year.					Failing to keep or permit inspection of Lists.														
	Outworkers.		Outworkers.		Outworkers.		Received from other Councils.		Forwarded to other Councils.		Failing to keep or permit inspection of Lists.		Prosecutions.		Instances.		Orders made (S. 110).		Prosecutions (Sections 109, 110).	
1	2 Lists.	3 Contractors.	4 Workmen.	5 Lists.	6 Contractors.	7 Workmen.	8	9	10	11	12	13	14	15	16	17	18			
Wearing Apparel :																				
(1) making	7	...	41	...	...	...	...	...	...	...	42	...	...	...	...	...	...	...	...	...
(2) cleaning and washing	...	...	-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	7	...	41	...	...	...	...	...	...	...	42	...	...	...	...	...	...	...	...	...

Wearing Apparel:

(1) making

(2) cleaning and washing

4.—Registered Workshops.

Workshops on the Register (S. 131) at the end of the year.								Number.
Bakers and Confectioners	...	...	...	...	...	...	...	38
Dressmakers and Milliners	...	...	...	...	...	...	...	56
Tailors	...	...	...	...	...	...	...	15
Watchmakers and Jewellers	...	...	...	...	...	...	...	7
Tinsmiths	...	...	...	...	...	...	...	4
Cabinetmakers and Joiners	...	...	...	...	...	...	...	13
Bootmakers and Repairers	...	...	...	...	...	...	...	22
Herb Beer Manufacturers and Bottlers	...	...	...	...	...	...	...	3
Artificial Teeth	...	...	...	...	...	...	...	8
Cycle Repairers	...	...	...	...	...	...	...	11
Ice Cream Manufacturers	...	...	...	...	...	...	...	26
Wheelwrights	...	...	...	...	...	...	...	2
Stonemasons	...	...	...	...	...	...	...	3
Picture Framers	...	...	...	...	...	...	...	3
Rag Stores	...	...	...	...	...	...	...	4
Blacksmiths	...	...	...	...	...	...	...	6
Others	...	...	...	...	...	...	...	17
Total number of workshops on Register								236

5.—Other Matters.

Class.										Number.
Matters notified to H.M. Inspector of Factories :										
Failure to affix Abstract of the Factory and Workshop Act (S.133)										...
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5)										5
Notified by H.M. Inspector Reports (of action taken) sent to H.M. Inspector										
Other										...
Underground Bakehouses (S. 101) :										
Certificates granted during the year										...
In use at the end of the year... ..										...

Your obedient Servant,
H. Y. STAZICKER,
Chief Sanitary Inspector and Cleansing Superintendent.

Part III.

FOOD.

(a) MILK SUPPLY.—Complaints received during the year relate chiefly to dirty milk. Each complaint is inquired into and steps are taken to remedy the cause. Only a higher standard of cleanliness in those who produce the milk, and those who handle it, will abolish this frequent cause of complaint.

MILK (Mothers and Children) ORDER, 1919.—During the year milk has been supplied to necessitous cases under this order. Details of the scheme were stated in last year's report and particulars as to the numbers supplied will be found on page 58.

(b) and (c) Details as to meat and other foods will be found in the Sanitary Inspector's Report, pages 33 and 34.

(d) No cases of food poisoning are known to have occurred in the Borough during the year.

(e) SALE OF FOOD AND DRUGS ACTS. These acts are administered by the County Council, to whose Chief Inspector, Mr. Laird, I am indebted for the following particulars of samples purchased in the Borough of Crewe during the year.

Name of Sample.	No. of Samples Analysed.	No. of Samples Adulterated or not up to Standard
Arrowroot	2	—
Borax	1	—
Butter	2	—
Camphorated Oil	2	—
Cheese	4	—
Castor Oil	1	—
Cocoa	5	—
Coffee	3	—
Eggs, dried	1	—
Epsom Salts	2	—
Eucalyptus Oil	1	—
Flour	1	—
Gentian Root	2	—
Gregory's Powder	1	—
Ground Ginger	2	—
Glycerine	1	—
Jam	2	—
Lard	4	—
Liquorice Powder... ..	2	—
Milk	60	3
Pepper	2	—
Rhubarb, Tincture of	2	—
Sauce	1	—
Yeast	1	—
Totals	105	3

Mr. Laird adds:—

With the exception of three milk all the samples were found to be pure. The cases relating to these three milk were dealt with as follows:—

1. Certified as deficient in fat to the extent of 11 per cent. The seller was prosecuted but the case was dismissed.

2. Certified as adulterated with 6·8 per cent of water. The seller was prosecuted but the case was dismissed.

3. Certified as adulterated with 3·5 per cent of water. The seller was cautioned.

Part IV.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

Notifiable Diseases.

The following diseases are compulsorily notifiable under the Infectious Disease (Notification) Act 1889.

Cholera.
Continued and Relapsing Fevers.
Diphtheria and Membranous Croup.
Enteric or Typhoid Fever.
Erysipelas.
Puerperal Fever.
Scarlet Fever.
Small-pox.
Typhus Fever.

Other diseases compulsorily notifiable under Orders or Regulations made by the Local Government Board are :—

Plague.
Cerebro-spinal Fever.
Acute Poliomyelitis.
Acute Encephalitis Lethargica.
Acute Polio-encephalitis.
Tuberculosis (all forms.)
Ophthalmia Neonatorum.
Acute Primary Pneumonia.
Acute Influenzal Pneumonia.
Malaria.
Dysentery.
Trench Fever.

The total number of notifications received during 1920 was 343 and the monthly incidence of each disease was as follows:—

Disease.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Scarlet Fever ...	5	1	1	5	2	9	6	10	11	30	31	31	142
Diphtheria ...	10	4	11	5	8	4	5	9	2	8	4	4	74
Acute Poliomyelitis }	...	...	...	...	...	1	...	...	...	...	...	...	1
Puerperal Fever ...	...	..	1	...	...	...	...	...	...	...	...	...	1
Small-pox ...	...	...	...	...	...	...	...	2	2	1	...	...	5
Erysipelas ...	1	...	1	1	...	...	...	...	1	2	2	2	10
Ophthalmia Neonatorum }	6	1	1	3	1	...	1	3	...	1	...	...	17
Pulmonary Tuberculosis }	3	5	3	4	8	2	1	2	4	6	11	2	51
Tuberculosis Other forms }	2	1	5	1	2	...	3	...	...	2	7	1	24
Pneumonia ...	...	...	7	3	2	2	...	1	...	2	1	...	18

Zymotic Death Rate.

This term is applied to the aggregate death-rate from the seven principal zymotic diseases, viz., Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, "Fever" (Typhus, Typhoid and Simple Continued), and Diarrhœa (under 2 years of age).

The number of deaths from these diseases in 1920 was as follows :

Disease.	Under 2 years.	2 years and under 5 years.	5 years and over.	Total.	Rate per 1,000 Living.	
					Crewe.	England & Wales.
Small-pox	...	...	...	...	...	0·00
Diphtheria	1	1	2	4	0·08	0·15
Scarlet Fever	...	2	2	4	0·08	0·04
" Fever "	...	...	...	...	...	0·01
Measles	3	...	1	4	0·08	0·19
Whooping Cough	2	...	...	2	0·04	0·11
Diarrhœa	6	...	...	6	5·7*	8·30*
Total	12	3	5	20	0·42	

* Rate per 1000 births.

TABLE OF THE PRINCIPAL INFECTIOUS DISEASES.

Disease.	Cases notified.	No. of Deaths.	Case Mor- tality.	Deaths per 1,000 of the Population.		Re- moved to Hos- pital.
				Crewe.	Eng- land & Wales.	
Diphtheria	74	4	5·4%	0·08	0·15	65
Scarlet Fever	142	4	2·8%	0·08	0·04	127
Measles	—	4	—	0·08	0·19	1
Whooping Cough	—	2	—	0·04	0·11	—
Erysipelas	10	3	30·0%	0·06	—	1
Puerperal Fever	1	—	—	—	—	1
Influenza	—	8	—	0·17	0·28	1
Small-pox	5	—	—	0·00	0·00	5

Small-pox.

Five cases of Small-pox were notified during the year, the salient dates of which are given in the following table:—

Case.	Sex.	Age.	Date of Onset.	Date of Rash.	Notified.	Removed to Hospital.
1	M	47	14-8-20	19-8-20	22-8-20	22-8-20
2	F	47	14-8-20	19-8-20	22-8-20	22-8-20
3	F	42	3-9-20	8-9-20	9-9-20	9-9-20
4	F	39	4-9-20	7-9-20	11-9-20	11-9-20
5	M	54	29-9-20	2-10-20	6-10-20	6-10-20

The outbreak was of a very mild character, the first three cases being of the varioloid type and the last two discrete. Case four had never been vaccinated and it is interesting to note that in her case the rash was more profuse and better developed than in the others who had been vaccinated in infancy. All the patients recovered.

Source of the Infection.

Cases one and two, a married couple, were infected in Manchester while attending the wedding of their daughter, who at the time was suffering from small-pox. Case three was probably infected indirectly from the first two cases, though the manner in which the infection was transmitted could not be accurately determined. Case four was infected directly from case two, whom she met in the street on August 21st, and whose rash she carefully examined. Case five presents some difficulty. He had not been away from the town for some time before his illness, and infection from the previous cases seems impossible. A more reasonable explanation is that there had been a mild case which had not been recognized and from whom the disease was acquired. Search was made for such a case but none could be found.

Method of dealing with the outbreak.

Each case was promptly removed to the Small-pox Hospital, Pym's Lane, while the other inmates were removed to the Isolation Hospital and accommodated in the Enteric Ward until the house had been thoroughly disinfected throughout. They were also vaccinated and their clothes were disinfected before they returned home. Other possible contacts were traced and kept under observation for the following three weeks. These measures were supplemented by enquiries and visits to the other houses in the neighbourhood to discover any possible concealed cases. Leaflets on vaccination, and posters were also distributed but produced no effect. The people amongst whom the small-pox occurred were deeply imbued with anti-vaccination beliefs, and preferred to ignore and disbelieve the possible dangers of small-pox and the certain advantages of vaccination. An attempt to discover on what this anti-vaccination attitude rested was disappointing. All at first replied "I don't believe in it" but when pressed for reasons revealed only a most complete ignorance of what vaccination is and what it does. Various statements were made but these were found to be more in the nature of excuses than of actual beliefs. In many instances fear of a painful arm with loss of work seemed to be the real reason underlying the objections. The important fact remains that in spite of all persuasion the people amongst whom the small-pox occurred and amongst whom the danger of an epidemic is greatest refused to avail themselves of the protection conferred by vaccination. Our greatest safeguard against the spread of small-pox is thus destroyed, and the prospects of a dangerous epidemic are very real and must be viewed with considerable apprehension. It is desirable, therefore, to emphasize the fact that a recent efficient vaccination affords practically complete protection against small-pox and that however prevalent, however virulent small-pox may be there is no reason why any one should suffer from it.

Previous cases.

Year.	Cases.	Deaths.
1920	5	0
1915	0	1 (transferred).
1903	5	0
1902	1	0
1884	—	1
1883	—	1
1875	—	1
1874	—	4

27 persons were vaccinated by your Medical Officer of Health under the Public Health (Small-pox Prevention) Regulations, 1917. Five of these were primary vaccinations, the remaining 22 were re-vaccinations.

Vaccination of Children.

The gradually diminishing number of children protected by vaccination will be seen in the following table kindly supplied by Mr. R. Lewis, the Registrar of Births and Vaccination Officer.

YEAR.	1908	1909	1910	1911	1912	1913	1914	1915	1916 to 1918	1919	1920
Births registered ...	1174	1120	1112	1028	1012	1009	1034	1033		746	1028
Died unvaccinated ...	74	83	71	116	44	62	75	62		31	72
No. Surviving Total	1100	1037	1041	912	968	947	959	971		715	956
Successfully vaccinated	706	623	581	538	553	492	453	477		304	421
Percentage successfully vaccinated ...	64	60	55	59	57	49	46	48		44	44
Certificates of insusceptibility ...	7	4	—	1	—	—	—	2		1	—
Certificates of exemption (Conscience Clause) ...	237	275	356	307	333	363	399	386		319	425
Percentage	20	24	32	33	34	38	40	39		45	43
Postponed by medical certificate ...	30	15	17	14	29	18	20	22		11	16
Removal to other districts	76	70	47	30	23	51	53	49		19	10
In abeyance	63	50	40	22	30	23	34	35		61	98

Diphtheria.

The number of cases of Diphtheria notified was 74, the Ward distribution being as follows :—

	North.	South.	Central.	West.	Total.
1918	37	54	22	15	128
1919	16	22	11	11	60
1920	19	17	17	21	74

The age distribution of the cases and deaths :—

Age	No. of Cases.	No. of Deaths.	Case Mortality.
Under 5 years	13	2	15·4%
5-15 „	51	2	3·9%
15-25 „	5	—	—
25-45 „	5	—	—
Total	74	4	5·6%

Bacteriological Examinations.

The number of swabs examined during 1920 was 324 :—

		THROAT.		NOSE.		Total.
		Positive.	Negative.	Positive.	Negative.	
Crewe	...	53	77	4	44	178
London	...	13	52	2	—	67
Manchester	...	17	41	2	19	79
Total	...	83	170	8	63	324

Diphtheria antitoxin is available for use in all cases, whether treated at home or at the Isolation Hospital.

During 1920, 24 vials containing a total dosage of 60,000 units were supplied to the General Practitioners of the town.

Scarlet Fever.

Scarlet Fever gradually increased in prevalence in the town throughout the year and in the last quarter attained epidemic proportions. The great majority of the cases were extremely mild and it was not surprising to find that many cases were missed and only recognised later when desquamating. These unrecognised cases played an important part in spreading the disease. In many

the only history obtainable was that two or three weeks previously they had had a slight sore throat, none of the other symptoms had been noted and no rash had been seen, while desquamation was only to be found on the hands. The symptoms were so slight that in many cases no doctor was called in.

The number of cases notified in each Ward :—

	North.	South.	Central.	West.	Total.
1918	20	13	10	20	63
1919	15	5	11	13	44
1920	66	24	41	11	142

The age distribution of the cases and deaths.

Age	No. of Cases	No. of Deaths	Case Mortality.
Under 5 years	30	2	6·6%
5-15 "	91	2	2·2%
15-25 "	18	—	—
25-45 "	3	—	—
45-65 "	—	—	—
Total	142	4	2·8%

Previous history of Scarlet Fever in the Borough is of interest. The Infectious Disease (Notification) Act came into force in Crewe in October, 1896, and from that date I have given the number of cases notified, but before 1896 the yearly number of deaths from this disease is the only information available and these are stated. The years have been divided into periods of five years and the numbers at the head of the columns refer to the first, second, third, fourth and fifth year of each period.

Deaths.	1	2	3	4	5
1874 and 1875	—	—	—	9	43
1876—1880	4	22	Many	77	No record
1881—1885	29	7	7	0	13
1886—1890	9	7	8	16	0
1891—1895	2	3	19	8	22
Cases.					
1896—1900	378	201	57	50	211
1901—1905	160	96	212	351	147
1906—1910	120	442	296	149	156
1911—1915	268	127	82	134	181
1916—1920	184	74	63	44	142

Pulmonary Tuberculosis.

The administrative control of this disease rests chiefly with the Cheshire County Council, who established a Tuberculosis Dispensary in Gatefield Street. Upon the Local Authority devolves the duty of ascertaining and causing to be remedied any insanitary conditions found in the homes of consumptives, and of ensuring the efficient disinfection of the house when the patient leaves.

The number of cases notified in each Ward is as follows:—

Year.	North. Ward.	South. Ward.	Central. Ward.	West. Ward.	Total.
1920	15	10	11	15	51
1919	15	10	15	9	49
1918	8	17	11	12	48

Of the 51 new cases notified during the year, 12 died within six months of the date of notification. Of these two were notified after death and seven within one month of death. In all 26 deaths were attributed to Pulmonary Tuberculosis during 1920. Two of these were of Crewe residents who died while away from the town.

The age distribution of the deaths was:—

Years.	1—5	5—15	15—25	25—45	45—65	65 and over.
Deaths	—	1	10	13	11	1

Bacteriological Examinations.

	Positive.	Negative.	Total.
Municipal Laboratory, Crewe	14	60	74
County Laboratory, Chester	24	80	104
Total	38	140	178

Open-air Shelter at Isolation Hospital.

This is a large double-bedded shelter. Its chief use is in furnishing isolation accommodation for advanced cases and in thus removing a source of infection from the home. The patients benefit also by receiving more and better attention and food than is possible in their own homes.

During the year 12 cases were admitted.

Sputum Boxes.

Provision is made for the supply of cardboard sputum boxes to consumptives as a means of disposing of the sputum in a cleanly manner. Their use has been largely superseded by the sputum flasks and mugs supplied by the Cheshire County Council Dispensary.

During the year 90 cardboard boxes were distributed.

Other Tubercular Diseases.

Cases notified	...	...	...	...	24
Deaths	...	...	...	...	17
Death-rate per 1,000	...	...	...	...	0·36

The age distribution of the deaths was:—

Years of age.	Under 1	1—5	5—15	15—25	25 and upwards.
Deaths.	2	5	7	2	1

Part V.

MATERNITY AND CHILD WELFARE.

Infantile Mortality.

The Infantile Mortality rates in the Borough and in other parts of the country in 1920 were as follows :—

			1920	1919	1918	1917
England and Wales	...	...	80	89	97	97
96 Great Towns	...	...	85	93	106	104
148 Smaller Towns (Crewe included)			80	90	94	93
CREWE	...	...	85	54	97	81

Infantile Mortality rates at various ages expressed as ratios per 1,000 births :—

	Under 1 week	Under 1 month	Under 3 months	3-6 months	6-12 months	Total Infantile Mortality
1920.	26·5	41·7	63·5	14·2	7·6	85·3
1919.	14·7	26·8	37·5	5·3	12·1	54·9
1918.	22·1	36·5	48·1	22·1	27·3	97·6
1917.	30·2	42·0	57·8	7·8	15·7	81·4

Still-born Infants.

					No. of Still-Births.	Percentage of Total Births.
1920	...	...	...	...	46	4·3
1919	...	...	...	...	20	2·6
1918	...	...	...	...	32	4·1
1917	...	...	...	.	18	2·4
1916	...	...	...	...	52	5·8

The principal causes of death in Infants under 1 year of age expressed as ratios per 1,000 living births.

DISEASE.	1893.	1918.	1919.	1920.
Whooping Cough	5·7	5·2	1·3	0·9
Diarrhoeal Diseases	54·5	6·5	2·6	5·6
Prematurity	13·9	18·2	14·7	29·4
Atrophy, Debility and Marasmus	11·4	7·8	5·3	14·1
Congenital Defects	2·4	13·0	5·3	1·8
Tuberculosis	13·9	1·3	—	1·8
Convulsions	13·9	6·5	1·3	3·7
Bronchitis and Pneumonia ...	36·6	28·6	13·4	11·3
Other Causes	19·5	13·0	10·6	17·9

Prematurity.

During the year 90 children under one year of age died, and 31 of these, 34·4% died of prematurity. As shown in the table above the mortality rate per 1,000 births is 29·4, but on comparing the corresponding figures for legitimate and illegitimate births, we find that the mortality from prematurity is 27·2 per 1,000 legitimate births and 111·1 per 1,000 illegitimate births.

The mortality rate due to prematurity for previous years is as follows :—

Year.	Rate.	Year.	Rate.
1910	28·8	1916	24·6
1911	22·3	1917	31·5
1912	14·7	1918	18·2
1913	28·6	1919	14·7
1914	22·9	1920	29·4
1915	23·9		

Midwives Act 1918.

¶ The supervision of Midwives rests with the County Council, to whose Medical Officer I am indebted for the information that in 20

instances the fees of medical practitioners called in to cases of complicated child-birth in the Borough by the Midwives were paid by the County Council under section 14 of this Act.

Notification of Births Act.

During the year 1,058 births were notified and 42 were ascertained from other sources of information, giving a total number of births of 1,100. The number of births in the Borough not notified was 16, a percentage of 1·5. The number of births registered was 1,058, this number, it may be pointed out, includes some babies born at the end of 1919 and omits some born towards the end of 1920. The number of transferred births was 26, making a total of 1,084.

Home Visiting.

The extent of the child welfare work carried out during the year by your Health Visitors is shown in the following report submitted by Nurse Rouen.

Number of babies visited.

Living babies	...	...	...	...	965
Stillbirths...	...	...	...	...	46
Dead when visited	...	...	...	...	26
Wrong addresses	...	...	...	...	10
Refused advice	...	...	...	...	33

Number of visits paid.

First visits to infants under 1 year	...	1,025
Re-visits " " " "	...	1,921
First visits to Illegitimate infants	...	17
Re-visits " " "	...	47
Re-visits to children of 1—5 years	...	1,396

Method of Feeding at time of first visits.

Breast fed entirely	...	...	...	784
" " partly	...	...	...	26
Artificially fed	...	...	...	154

Artificially Fed Infants.

Food	Cow's Milk	...	...	...	76
	"Glaxo"	...	...	...	47
	Other foods	...	...	...	31
Bottles	Hygienic	...	...	...	168
	Long tube	...	...	...	5
	Medicine bottle	...	...	...	5
	Spoon	...	...	...	2

Of the 965 babies, 125 were found to be sleeping alone, a percentage of 12.9. It is satisfactory to note that the percentage of babies sleeping alone is increasing, the percentage being 7.2 in 1919, 4.7 in 1918 and 6.3 in 1917.

Ante-natal Work.

The Health Visitors visited and advised 103 expectant mothers.

Infant Welfare Centres.

There are at present three welfare centres in the Borough:—
Cobden Street Centre open on Monday afternoons 2-30—5 p.m.
Wedgewood Assembly Rooms open on Thursday afternoons
2-30—5 p.m.

St. John's, Stalbridge Rd., open on Monday afternoons 2-30—5 p.m.

The Wedgewood Assembly Rooms are occupied temporarily until the adaption of the Old Railway Hospital in Lyon Street has been completed.

Attendances at the Centres.

The number of mothers who attended the Infant Welfare Centres during 1920 was 734, and the number of visits paid by them was 5,272.

During the year 6,243 lbs. of "Glaxo" were distributed.

Milk (Mothers and Children) Order 1918.

The number of families supplied with milk under this Order was 116 and the total quantity of milk supplied was 4,613 gallons and $\frac{1}{2}$ pint. 105 families were supplied with 3,216 gallons, 3 quarts, 1 pint free of charge, and 11 families were supplied with 1,396 gallons, $1\frac{1}{2}$ pints at half cost.

Voluntary Workers.

Great assistance in the work of carrying on the Centres has been rendered by the voluntary workers, whose help has indeed been invaluable. The greater number of these ladies are members of the Crewe Nursing Division of the St. John Ambulance Brigade.

Medical Advice.

The Medical Officer attends at each centre, to advise mothers on the care and feeding of their infants. This facility has largely been made use of.

Puerperal Fever.

Provision is made for the treatment of this disease at the Isolation Hospital.

During the year one case was notified and was treated at the Isolation Hospital.

Ophthalmia Neonatorum.

17 cases were notified and of these four were treated at the Isolation Hospital. In no case was any permanent damage done to the eyes.

This disease became notifiable in April, 1914, and the number of cases notified since that date is as follows :—

Year.	Cases.	Year.	Cases.
1914	10	1918	7
1915	8	1919	11
1916	6	1920	17
1917	3		

Part VI.**SANITARY ADMINISTRATION.**

1. Staff: The Staff of the Sanitary Department is:—

- A.
 1. Chief Sanitary Inspector.
 2. Two Assistant Sanitary Inspectors.
 3. Disinfecter.
 4. Foreman, Scavenging Department, for domestic refuse.
 5. Clerical Staff.
- B. Maternity and Child Welfare Staff:—
 1. Two Health Visitors.
 2. Clinic Assistant and Clerk.
 3. Six voluntary workers

Isolation Hospital.

The cases dealt with in 1920 were:—

	In Hospital Dec. 31st, 1919.	Admitted	Discharged	Died.	In Hospital Dec. 31st, 1920.
Scarlet Fever ...	3	127	97	4	29
Diphtheria ...	—	65	59	3	3
Erysipelas ...	—	1	1	—	—
Observation ...	—	25	25	—	—
Measles ...	—	1	1	—	—
Ophthalmia Neonatorum ...	—	4	2	2	—
Puerperal Fever ...	2	1	2	1	—
Pneumonia ...	—	2	2	—	—
Pulmonary Tuberculosis ...	2	12	10	4	—
Influenza ...	—	1	1	—	—
Small-pox ...	—	5	5	—	—
Total ...	7	244	205	14	32

The percentage of Scarlet Fever cases removed to the Hospital was 89·4% as compared with 95·4% in 1919.

Average Length of Stay in Hospital.

Scarlet Fever Patients, excluding cases which died ...	41·4 days
Scarlet Fever Patients, including cases which died ..	40·7 „
Diphtheria Patients, excluding cases which died ...	30·7 „
Diphtheria Patients, including cases which died	30·4 „
Phthisis Patients, excluding cases which died ...	61·8 „
Phthisis Patients, including cases which died... ..	53·9 „

Steam Disinfection at the Hospital

Disinfection of bedding and clothing from infected houses and from the hospital wards is carried out in the Washington Lyon Disinfector. In addition 595 articles, chiefly sets of bedding, from the Cottage Hospital were also dealt with.

House Disinfection after Infectious Disease.

265 houses were disinfected after infectious disease, the chief diseases thus dealt with were Scarlet Fever (115), Diphtheria (75), Phthisis (34), Pneumonia (7), Measles (7), Small-pox (5).

The Work of the Staff.

It is satisfactory to receive so many expressions of thanks for treatment from the parents and relatives of the patients

Matron and Staff have carried out their work satisfactorily, and I wish to express my personal appreciation of their services.

Arrangements for Bacteriological Work.

In the Municipal Laboratory examination of throat swabs for suspected Diphtheria and Sputum for Tubercle are carried out so far as time permits this to be done. Specimens are also sent to the Public Health Laboratory, Manchester University and the Clinical Research Association, London.

The results of examinations during the past year are shown on pages 51 and 53.

Part VII.

HOUSING.

1. General Housing Conditions in the District.

1. (a) Total number of houses 10,499 to which may be added the 69 huts erected by the L. & N. W. Railway Company.

(b) Houses for the working classes 9,131 plus the 69 huts.

- (c) New houses for working classes erected during the year 2, plus huts 69.

New houses in course of erection.

2. (a) Extent of shortage or excess of houses.—There is a decided shortage of houses. From a survey carried out in 1918 it was found that in 441 houses in the Borough two families resided. This number is now probably increased.

(b) Measures taken or contemplated to meet shortage. The Town Council's Housing Scheme will remedy this.

3. Population estimated to the middle of the year 47,458. It is anticipated that the population will increase considerably in the near future.

2. Overcrowding.

- (a) Extent.—A survey carried out in 1919 showed that in 736 houses eight or more persons resided and in 172 of these houses more than two persons lived per room.

(b) Cause.—Shortage of houses.

- (c) Measures taken or contemplated for dealing with overcrowding.—No measures can be taken until new houses are available, and

- (d) Principal cases of overcrowding during the year and action taken.—Until a sufficient number of new houses are available this evil will persist.

3. Fitness of Houses.

1. (a) General standard of housing in the district.—All the houses in the Borough are self-contained dwellings with separate yards for each house.

Back to back houses.—There are 59 of these in blocks of four. Each house has a separate garden and cross ventilation in some of the rooms.

There are no cellar dwellings or tenement houses in the Borough.

- (b) General character of the defects found to exist in unfit houses.—General repairs, cleansing and the alteration of sanitary conveniences are the chief defects.

- (c) How far defects are due to the lack of proper management and supervision by owners.—It is difficult to say: during the war it was very difficult to have repairs carried out and the same applies to a certain extent to the present time. The combination of small rents and high costs offers but small inducement to carry out improvements.

2. General action taken as regards unfit houses under:—

- (a) The Public Health Acts—Where defects can be remedied under these Acts they are thus dealt with.

- (b) The Housing Acts—Notices under these Acts are issued as required.

3. Difficulties in remedying unfitness—Special measures taken or suggested.

Little difficulty is experienced in remedying minor degrees of unfitness. In the case of houses in such a state as to call for closing orders the absence of any available alternative accommodation for the

tenants to occupy prevents any action being taken. These houses will be dealt with as soon as alternative accommodation becomes available.

4. Conditions so far as they affect housing, as regards water supply, closet accommodation, and refuse disposal, together with measures taken during the year in these matters.--These subjects may be found in detail in Part II.

4. Unhealthy Areas.

Information as to complaints or representations made and action taken in regard to unhealthy areas under Part I or Part II of the Housing Act of 1890.

No complaints were made and no action taken.

5. Bye-laws Relating to Houses, to Houses let in Lodgings, and to Tents, Vans, Sheds, &c.

1. As to working of existing Bye-laws.—The Bye-laws at present in force are carried out.
2. As to need for new Bye-laws or revision of existing Bye-laws.—No need at present.

6. General and Miscellaneous.

Nil.

7. Appendices.

1.—General.

(1)	Estimated population	...	...	...	...	47,458
(2)	General death-rate	...	...	...	...	11.7
(3)	Death-rate from Tuberculosis	...	...	...	...	17
(4)	Infantile mortality	...	...	...	...	85
(5)	Number of dwelling-houses of all classes	...	10,499	and	69 Huts	
(6)	Number of working-class dwelling-houses	...	9,131	and	69 Huts	
(7)	Number of new working-class houses erected	...	2	and	69 Huts	

2.—Unfit Dwelling-Houses.

I.—Inspection.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	450
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910.	—
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	36

II.—Remedy of Defects without Service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	251
--	-----

III.—Action under Statutory Powers.

A. *Proceedings under section 28 of the Housing, Town Planning, &c., Act, 1919.*

(1) Number of dwelling-houses in respect of which notices were served requiring repairs... ..	—
(2) Number of dwelling-houses which were rendered fit:—	
(a) by owners	—
(b) by Local Authority in default of owners	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	—

B. Proceedings under Public Health Acts.

- | | |
|---|----|
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied :— | 98 |
| (2) Number of dwelling-houses in which defects were remedied :— | |
| (a) by owners | 98 |
| (b) by Local Authority in default of owners | — |

C. Proceedings under sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

- | | |
|---|---|
| (1) Number of representations made with a view to the making of Closing Orders | — |
| (2) Number of dwelling-houses in respect of which Closing Orders were made | — |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit | — |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made | — |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders | — |

3.—Unhealthy Areas.

Areas represented to the Local authority with a view to Improvement Schemes under (a), Part I., or (b), Part II., of the Act of 1890 :—

- | | |
|---|---|
| (1) Name of area | — |
| (2) Acreage | — |
| (3) Number of working-class houses in area ... | — |
| (4) Number of working-class persons to be displaced | — |

4.—Number of houses not complying with the building byelaws erected with consent of Local Authority under section 25 of the Housing, Town Planning, &c., Act, 1919

5.—Staff engaged on housing work with, briefly, the duties of each Officer





